

### **Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claim 1 (Currently Amended): A computer-implemented interface for reclaiming memory in a multi-threaded virtual machine environment, the multi-threaded virtual machine environment including a virtual machine, the computer-implemented interface comprising:

a first module, the first module being associated with the virtual machine **and having routines configured to interact interchangeably with a plurality of garbage collectors**, the **first module routines** including a first routine for initiating a garbage collection process within the virtual machine environment, a second routine for scanning roots associated with the virtual machine environment, a third routine for following roots through objects associated with the virtual machine environment; and

a second module, the second module being separate from the first module, the second module being arranged to interface with the first module, the second module including a fourth routine for initializing a heap in the virtual machine environment, a fifth routine for allocating an object in the virtual machine environment, and a sixth routine for performing the garbage collection process.

Claim 2 (Original): A computer-implemented interface according to claim 1 wherein the second module further includes at least a seventh routine for implementing barriers for the garbage collection process.

Claim 3 (Original): A computer-implemented interface according to claim 2 wherein the barriers include a read barrier and a write barrier.

Claim 4 (Original): A computer-implemented interface according to claim 1 wherein the first module includes a seventh routine for handling particular objects associated with the virtual machine environment.

Claim 5 (New): A computer-implemented interface according to claim 1 wherein the routines of the first module are further configured to interact interchangeably with a plurality of garbage collectors, the garbage collectors operating generally according to a plurality of garbage collection algorithms.

Claim 6 (New): A computer-implemented interface according to claim 1 wherein the fourth, fifth, and sixth routines are each further configured to interact only with those garbage collectors that are algorithm-specific garbage collectors each operating generally according to the same garbage collection algorithm.

Claim 7 (New): A computer-implemented interface for interchangeable use with garbage collectors in a virtual machine environment, comprising:

- a first module, the first module being associated with the virtual machine and having common routines configured to interact interchangeably with a plurality of garbage collectors operating generally according to a plurality of garbage collection algorithms, the common routines including a first routine for initiating a garbage collection process within the virtual machine environment; and

- a second module, the second module being separate from the first module, the second module being arranged to interface with the first module and having algorithm-specific routines that are not configured to interact interchangeably with the plurality of garbage collectors, the algorithm-specific routines including a second routine for initializing a heap in the virtual machine environment.

Claim 8 (New): The computer-implemented interface of claim 7 wherein the algorithm-specific routines are further configured to interact only with those garbage collectors that are algorithm-specific garbage collectors each operating generally according to the same garbage collection algorithm.

Claim 9 (New): The computer-implemented interface of claim 7 wherein the first module further comprises a third routine for scanning roots associated with the virtual machine environment, a fourth routine for following roots through objects associated with the virtual machine environment.

Claim 10 (New): The computer-implemented interface of claim 9 wherein the second module further comprises a fifth routine for allocating an object in the virtual machine environment, and a sixth routine for performing the garbage collection process.

Claim 11 (New): The computer-implemented interface of claim 10 wherein the second module further includes at least a seventh routine for implementing barriers for the garbage collection process.

Claim 12 (New): The computer-implemented interface of claim 11 wherein the barriers include a read barrier and a write barrier.

Claim 13 (New): The computer-implemented interface of claim 7 wherein the first module includes a third routine for handling particular objects associated with the virtual machine environment.